and does reach the œsophagus. The remaining twenty-seven pairs are distributed in the space to the right and left of the œsophagus, so that thirteen pairs lie on the one side and fourteen pairs on the other. Each pair consists of a larger perfect macroseptum, and a smaller imperfect microseptum.

If we term the side marked by the larger pair of directive septa, the ventral side, we see that almost all the pairs of septa are placed in such a way that the larger, perfect septa are directed ventrad, the smaller imperfect septa dorsad; the two pairs of septa next to the small dorsal pair of directive septa form the only exception to this rule as their dorsal septa are the larger, their ventral septa the smaller. We can therefore distinguish two systems of pairs of septa, a dorsal and a ventral. The result is the following perfectly regular arrangement of the septa: as a rule the larger and smaller septa alternate, but at three points two small septa lie between two large septa, viz., at the dorsal end where the small pair of directive septa lie, and a little way further right and left from the directive septa, where the dorsal and the ventral systems of septa are mutually bounded by small septa.

At the ventral end, on the other hand, we find three spaces between large septa, in which the small septa are wanting, viz., the intraseptal space of the large directive septa, and the two adjacent interseptal spaces. To explain this more clearly I give formulæ for the dorsal (1), and for the ventral side (2), showing the distribution of the septa.

1. Dorsal side, { &c. *gk gk* ⋮ *kg kg* <u>*k*</u> | <u>*k*</u> *gk gk* ⋮ *kg kg* &c. }
2. Ventral side, { &c. *kg kg* *kg kg* <u>*g*</u> | <u>*g*</u> *gk gk* *gk gk* &c. }

In these formulæ the letter *g* indicates the large septa, *k* the small septa, the dotted lines the boundaries between the dorsal and ventral systems, the black lines the position of the sagittal axis, the underlining the directive septa.

Three of the twenty-seven pairs of septa are still imperfectly developed, and much smaller than the others; the two pairs lying to the right and left of the ventral directive septa, and the extra pair of septa which is only present on the one side. As I discovered from other polyps of the same *Zoanthus* colony, the two pairs named at first are the youngest in age. Their macrosepta resemble on the whole the small septa of the other pairs; they have no mesenteric filaments, and the uppermost section only reaches to the œsophagus.

I got an explanation of the manner and sequence in which the septa are developed from examination of a small polyp, only a few millimetres high. It had forty-eight septa in all; exclusive of the directive septa, there were twenty-one on one side and twenty-three on the other (Pl. XIV. fig. 6). In the region of the smaller directive septa, the conditions were the same as in the developed polyps, but towards the ventral side the